Archives of Psychiatry and Psychotherapy
Volume 5, Issue 1, March 2003
pages 45–57

The quality of life of schizophrenic patients. Part one – research results in the psychosocial treatment programme

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Summary

Aim: *The article presents the results of several years of study concerning a group of schizophrenic patients who were embraced by the psychosocial treatment programme throughout the seven years of the follow-up period.*

Method: *A homogeneous group of sixty-six schizophrenic patients, diagnosed according to DSM-III, was examined isochronally with Lehman's quality-of-life questionnaire seven years after their first psychiatric hospitalisation. The internal relations in the quality-of-life model were analysed as well as the factors influencing its explication.*

Results: *It was observed that these domains which are subjective indicators of the quality of life are strongly, positively and extensively interrelated and that they correlate with general satisfaction with one's life, in contrast to the objective domains. The subjective assessment of general satisfaction with life is positively correlated with general objective assessment of the quality of life, but particular, both subjective and objective, domains of the quality of life are partly related and partly independent from one another. General satisfaction with one's life is best explicated by a gamut of factors: subjective satisfaction with religious life, employment, social contacts and the female gender.*

Key words: quality of life, psychosocial treatment, schizophrenia

The era of empirical studies on the quality of life began with the study by Malm et al. [1], who were the first to use a questionnaire to assess the quality of life of schizophrenic outpatients. The study by Lehman et al. [2] began still a new period, when previous studies underwent a critical evaluation. Nowadays researchers seek answers to their questions about significant clinical relations by designing research projects that embrace representative and homogeneous study groups and rely on a prospective, longitudinal approach in follow-up studies. The Kraków study on the course of schizophrenia belongs to this trend of research [3, 4, 5]. Although some methodological drawbacks have been pointed out and the researched construct itself has been criticised, the majority of studies on the quality of life attempt to find answers to the same questions and provide similar results. The latter can be summed up as in the following:

1. Regardless of diagnosis, the quality of life of psychiatric patients is lower than that of all population and than that of chronic somatic patients [2, 6].
2. Prospective studies show that therapeutic and rehabilitation intervention improves the quality of life, especially in the group of chronic mental patients [7].
3. Those patients who live in the community, with the same or even higher level of psychopathology, have a better quality of life than those who are hospitalised for a long time [8].
4. A negative correlation was observed between relapses, psychopathology and the quality of life [5, 9, 11, 12, 13].
5. Female psychiatric patients have a better quality of life than male [14].
6. The sense of one's own worthiness in psychiatric patients is an important predictor of their quality of life [15, 16].
7. The quality of life is impaired by the side effects of neuroleptics [11]
8. Family environment is related to the quality of life [17].
9. Cognitive deficits in schizophrenia have little impact on the quality of life [12].

The next presentations of the results of the Kraków prospective study analyse the correlations between the above mentioned phenomena. This publication, which opens up the series, contains a fuller description of the aims of the study, both general and specific, a description of the study group and of the applied tools as well as subjective and objective indicators of the quality of life that were accepted as criteria to assess treatment outcome in the psychosocial treatment programme.

The aim of the Kraków study on the quality of life of schizophrenic patients

The Kraków study on the quality of life of schizophrenic patients treated in the psychosocial programme is spread over a long period of time and first of all it aims to assess the dynamics of change at subsequent follow-up points, seven and twelve years after the first episode. The main aims were identified as follows:

1. Description of subjective and objective indicators of the quality of life of schizophrenic patients seven years after the first admission.
2. Analysis of the construct of the quality of life: assessment of internal correlations and the impact of explanation factors.
3. Analysis of the relation between treatment outcome and the quality of life.
4. Assessment of the dynamics of the quality of life seven and twelve years after the first admission.

This article describes the first stage in the study. The coming publications will discuss subsequent stages, including the analysis of the relation between the quality of life and gender, psychopathology, re-admissions, the course of the illness, and social network as well as the dynamics of these phenomena in time.

Description of the study group

The study group consisted of sixty-six schizophrenic patients, diagnosed according to the criteria of DSM-III, residents of Kraków, seven years after their first inpatient

hospitalisation. The study was conducted between 1992 and 1994. The patients, having been hospitalised as inpatients at the Kraków Psychiatry Clinic, throughout the follow-up period received individual treatment from therapists from the Clinic, which ensured the continuity of the therapeutic process. The group was slightly dominated by women (58%), patients with secondary education (45%) and vocational education (21%) (cf. Table 1). The group comprised quite many patients (30%) with higher education, which is typical for the population of Kraków, where several universities are based. The study population represents those suffering from schizophrenia in a university city in Poland.

Table 1

Description of study group at first admission (N=66) and after 7 years (K-7): demographic predictors

Demographic predictors	Categories	First admission (N=66)	K-7 (N=66)
Gender	Women	38 (58%)	
	Men	28 (42%)	
Age	Spread	From 18 to 43	34.1
	Average age in years	27.1	
Marital status	Married	22 (33%)	29 (45%)
	Divorced	0 (0%)	3 (4.5%)
	Single	44 (67%)	34 (50.5%)
Education	Higher	20 (30%)	
	Unfinished studies	5 (8%)	
	Secondary	25 (38%)	
	Vocational	14 (21%)	
	Primary	2 (3%)	

At the moment of their first admission, almost one-third of the patients were married. During the seven years following the first hospitalisation, ten patients (seven women and three men) got married, and one of them during the same period got divorced, just as two other patients who were married before the first hospitalisation.

A surprisingly large number of the patients (89%), despite strict criteria of inclusion in the study group (narrow diagnosis), made at least an attempt to start employment or improve their education before their first psychiatric hospitalisation (Table 2). Only 11% of the patients from the study group neither worked nor studied at the moment of their first hospitalisation, and 7% of them did not work and received no sickness benefit. As shown in Table 2, during the first seven years of the illness, a vast majority of the study group (over 50%) lost their jobs and started to receive sickness benefit.

Table 2

Employment at first admission (N=66) and after 7 years (K-7)

Social predictors	Categories	First admission (N=66)	K-7 (N=66)
Employment/ Education	1. Full time	68%	21 (29%)
	2. Full time, periodically on sickness leave	18%	5 (7.5%)
	3. Part time	3%	1 (1.5%)
	4. Sheltered employment	0%	1 (1.5%)
	5. Casual employment	0%	2 (7.5%)
	6. No employment, sickness benefit	4%	35 (51.5%)
	7. No employment, no sickness benefit	7%	1 (1.5%)

Tools and statistical methods

Earlier studies [18] made the quality of life operational thanks to the objective indicators of the living standard. Later studies from the 1980's contain interviews with patients and their subjective assessments. Several questionnaires of recognised reliability and validity were constructed: Quality of Life [19], Satisfaction with Life Domains Scale [20], Quality of Life Self-Report [10], Quality of Life Scale [21], Oregon Quality of Life Questionnaire [22], Lancashire Quality of Life Profile [23]. All these questionnaires usually include data concerning the global quality of life, satisfaction with particular life domains and information about objective living conditions. Now they are translated into various languages and applied in numerous studies. Unfortunately, the chief objection against these studies is that different types of questionnaires are used which are often unsuitable in a given study group.

The Kraków study uses the Polish version of the quality-of-life questionnaire by Anthony Lehman et al. [2], with the permission of the authors. The Polish language version was linguistically validated. The interviewers were trained, and the reliability of the Polish version was evaluated. In all the scales a very high reliability coefficient was observed (Cronbach's alpha coefficient was between 0.78 and 0.98). The questionnaire by Lehman et al. was designed in 1980 in order to assess the living standard of people with severe mental disorders, most of all schizophrenics. It allows one to assess both the subjective and the objective quality of life in eight fundamental domains: living conditions, everyday activities and leisure, family situation, social relations, financial situation, employment and education, sense of safety and legal problems, and health. Lehman accepted the possibility that the questionnaire could be modified by adding indicators that are important for a given domain, or omitting or adding whole life domains depending on the needs of the study. In our study the questionnaire contains the ninth domain of religion.

The parts concerning each domain of life are constructed in such a way that at first information is collected on the objective quality of life and then on the patient's subjective attitude to the same (220 questions). The obtained objective and subjective indica-

tors of the quality of life in the investigated domains form the basis of the model of assessment of the quality of life. All subjective indicators of the quality of life are obtained by means of the seven-degree 'scale of satisfaction'. Objective indicators pertain, on the one hand, to the assessment of the patient's functioning, e.g. the frequency of social contacts or everyday activities; on the other hand, to the accessibility of resources or the opportunities of using them by the patient, e.g. financial resources or the type of provided care.

Methods of statistical analysis

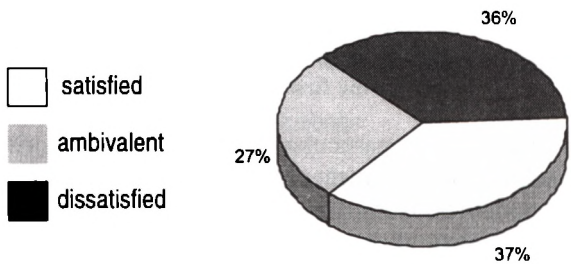
General satisfaction with life was assessed on the basis of the average of the sums of the first and last points of the questionnaire (QQL Interview). The interviewers classified the answers on Likert's scale, from 1 to 7 points. The objective aspect was based on the sum of the answers, and the subjective one on the sum of subjective scales in each domain.

Results

The results of the study are presented in the subjective and objective aspects, taking into consideration the nine particular domains, which are the indicators of the quality of life (QL).

Results in the subjective aspect of the quality of life

The objects of the analysis, as indicators of subjective quality of life (QL), were (i) general subjective satisfaction with life and (ii) satisfaction with life in the nine investigated domains (Graphs 1 and 2).

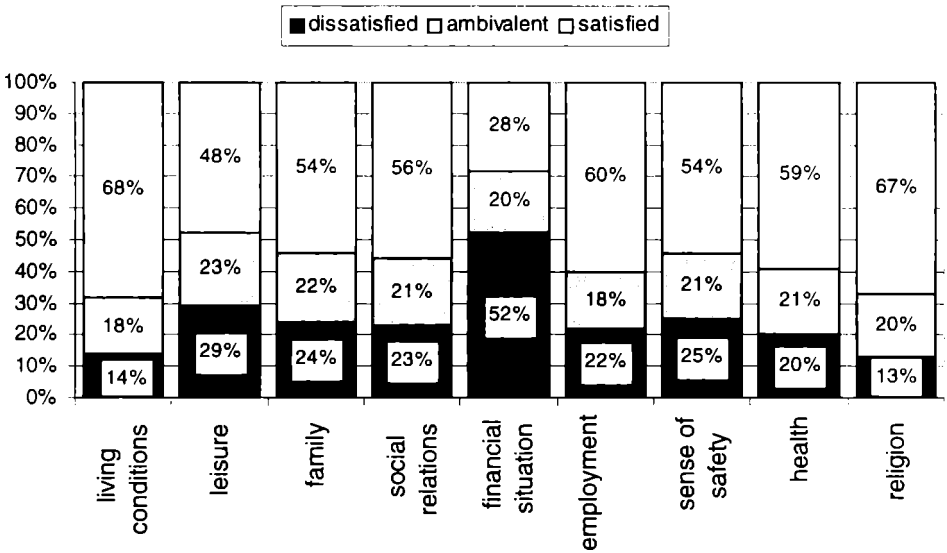


Graph 1 **General subjective assessment of the quality of life 7 years after the first admission (N=66)**

The number of those who are satisfied (37%) and dissatisfied (36%) with their lives is almost equal. Except for the domain of financial situation (28% of the patients were satisfied with it), general satisfaction with one's life was lower than satisfaction with particular life domains. In the remaining particular domains, the number of those who are satisfied with them is higher, from 48% to 68%.

The domain with which the patients were subjectively the most satisfied was their living conditions (68%). Then, religion (67%), employment (60%), health (59%), social relations (56%), sense of safety and family (54%), and leisure (48%) were assessed positively. The least satisfaction was achieved in the domain of financial situation (see Graph 2 below).

Just as general satisfaction with one's life is lower than average satisfaction with particular life domains, so the answers to detailed questions (i.e. indicators of the assessment of a given domain) may contain very different opinions. For example, one can be satisfied with the level of safety that is typical of his/her street (66%), but dissatisfied with the work of the police who ensure this safety (49%).



Graph 2 **Subjective assessment of satisfaction with life in 9 particular areas years after the first admission, K-7 (N=66)**

The analysis of answers in particular areas shows that positive answers are predominant. In the subjective assessment of their *living conditions*, the patients are rather satisfied with the equipment (67%), food (82%), house rules (61%), level of privacy (64%) and level of freedom in their apartments (71%). Practically, only one patient negatively assesses the level of freedom allowed by other residents. The high level of satisfaction is connected with the prospects of stability and permanent residence at the place where the patients have lived for a long time (50%).

In the assessment of leisure activities, a high level of ambivalence is easily noticeable: ambivalent attitudes amount to 33%. For 59% of the patients, the highest subjective satisfaction is connected with watching TV and listening to the radio. Positive assessments are also predominant in the subjective opinions on the *family* (56%), frequency (59%) and manner (47%) of contacts, and the general atmosphere in the family (55%).

In the subjective assessment of the current *employment*, among those who are employed (39.5% of the study group, including 1.5% of those who have sheltered employment), opinions were collected on general assessment of the work, on colleagues at work, on the atmosphere at the workplace, on the number of working hours per week and on the compensation. As to the first four points, moderately positive answers prevail, whereas opinions on the compensation are predominantly negative and occupy more extreme positions on the scale. Analysing the subjective scale, one can find out that negative assessments are in the majority, both in relation to the available *financial resources* (54%), their distribution (52%), and amounts spent on entertainment (49%), and to the sense of financial security in general (54%).

As to the subjective assessment of *social contacts* and the experience of friendship in the patients' lives, positive answers are predominant, and almost one-third of the answers are ambivalent. Almost 45% of those who have friends think that they had fewer opportunities in their lives to meet people with whom they could feel really well. The patients have positive opinions about their neighbours, which is testified to by a very high level of the *sense of safety* (the highest points of the scale with 77% of the patients).

In the subjective assessment of *health*, positive answers concern the accessibility of medical services (70%) and the opportunity to talk to a therapist (82%). In the assessment of general health condition, both emotional and physical wellbeing, ambivalent answers are in the majority. Only 40% of the interviewed are dissatisfied with their health. Subjective satisfaction with *religious life* was declared by 78% of the patients, which points to the enormous importance of religion as an indicator of the quality of life.

Results in the objective aspect of the quality of life

The results of the objective aspect are presented in the nine researched areas.

Living conditions

The first examined domain is the living conditions. Only four patients (5%) live on their own, while the remaining ones live with their procreation family (45%) or multigeneration family (44%). The vast majority of the interviewed (77%) have lived at the present place of residence for over five years, which is a common cultural trait in Polish society, and which for chronic patients may create a sense of being rooted in the community in which they live. None of the patients had spent a night in a hostel for the homeless during the last year, which shows that the patients are not affected by the phenomena of social degradation or homelessness. What is striking is the relatively high level of comfort in the patients' place of residence, e.g. 58% of them have a telephone. Only one person lives in very primitive conditions. 73% of the interviewed have enough living space at their disposal to guarantee a sense of privacy.

Leisure and recreation

During the week preceding the interview, 92% of the patients watched TV and 82% listened to the radio. In the same period only three patients went to the cinema, but as many as 80% read a magazine or a book. 20% of the interviewed went to the library. 94% single-handedly do at least some shopping and prepare simple meals. Almost 60% of the interviewed met their friends.

Family

What is notable is that as many as 45% of the patients are married. The information that can be collected with the help of the questionnaire by Lehman et al. concerning the objective relations of the interviewed with the family amounts to the answer about the frequency of contacts with relatives in the last year. Nearly 77% of the patients remain in everyday, frequent contact with a relative. One patient does not talk to any of the relatives.

Social relations

This domain concerns close relations with people outside the family. Majority of those interviewed (70%) have friends and contact them at least once a month. Two patients have friends with whom they live. One can observe a high frequency of visits and phone calls with friends, or implementation of common plans, while correspondence is least frequent. 55% of those patients who are not married have no partner (boyfriend or girlfriend).

Financial situation

This domain of the questionnaire required special adaptation to the social and economic conditions of Poland. Analysing the financial documentation of the interviewed, one can see that 88% of them were employed in the past, but at the moment of the follow-up interview 62% received sickness benefit. Three patients received alimony, four worked in sheltered employment, and three had casual employment (e.g. periodically went abroad to work). The study was conducted in the years 1992-1994, when the average salary in Poland was 3,995 PLZ. As many as 48 patients (73%) in the year preceding the interview received a monthly salary smaller than the average. One patient had a monthly salary of 15,000 PLZ. There is a group of 18 (27%) patients who do not have any money for their own entertainment. In the monthly budget, 20% of the interviewed declare a shortage of money for food, 42% for clothes, 9% for baby and child care, 20% for public transport, and 27% for rent. A vast majority of the patients have always enough money for the above mentioned expenses. A large group of 55% of patients do not have enough money to go to the cinema, theatre or restaurant. What is observable in the structure of the budgets is that almost 58% of the patients do not smoke. The interviewers judge the answers concerning the financial situation as very reliable.

Employment and education

The interviewed generally have high professional qualifications. The majority of them are white-collar workers, and as many as 32% of the study group have higher education. Most of the remaining patients have secondary (mainly technical) education. Almost all the patients had an experience of employment: only 4.5%, that is three patients in the group, have never worked. Every interviewed person, however, has a profession. Chiefly, the interviewed worked for a long time. 47% (31 patients) worked for over ten years, and 9% (6 patients) worked for twenty years or even longer. When the interviewed worked, they rarely changed their jobs. 20% never changed a job, 15% changed it once, and 18% twice. Only one patient is an exception and a 'record holder': he changed his job 12 times.

At the time of the interview, 39.5% of the patients were employed. Characteristically enough, as many as 42% of them did not work in their acquired profession. Only one of the interviewed (1.5%) worked in sheltered employment, and almost all of the employed patients worked full-time. In the last year, 6% of the study group lost their jobs, and in the last five years 35% of the group ceased working. Among those who are not employed, 60% in previous years lost jobs in such places as a library, museum, international centre of culture, office (e.g. land surveyor's office, other offices), or in sheltered employment. The most frequently mentioned reasons for the lack of employment in the previous year were primarily psychiatric problems, and 41% of the patients perceive them as the most important reason of their unemployment. In the group of the unemployed, 4.5% could not find a job, although they looked for it. In a few cases the reason for unemployment in the last year is the necessity to care for children or parents (mother) as well as other emotional or family problems such as the death of relatives.

In the last year, 33% of the patients had various casual occupations. The jobs are of different kind: teaching foreign languages, private tuition, construction or maintenance work, sales, playing musical instruments, office work and services. (One patient collected waste paper and sold it.) 9 patients (14%) in the last year had various voluntary, unpaid jobs in kindergartens or schools attended by their children, or in the trade unions (2 patients). In the last year, 20% of the interviewed received various types of education, chiefly attended foreign language courses. In the study group there is no school pupil or student.

Legal problems and sense of safety

During the year preceding the interview, 7 of the patients (11%) fell victim to crime but not violence (theft or burglary), while 4 patients (6%) were victims of crime and violence. Two male patients were guilty of minor offences. None of the patients spent the night at a police station or in a prison.

Health

About 20% of the patients assess their health condition generally as bad, but 35% declare improvement in their health in the last six months. Apart from the activities that are exhausting (e.g. athletic sports) and require much physical effort, the patients' health

condition does not restrict their everyday activities. However, when answering detailed questions concerning the last four weeks, nearly 35% of the patients said that because of their health they had to limit their work or other occupations. In the last four weeks, emotional problems such as depression or anxiety had much more impact on the work and occupations of the interviewed. Almost 15% of the study group point to their limited social functioning, to a high or very high degree, caused by emotional problems. Almost 60%, answering detailed questions, state that their mood is fairly good, that they do not feel exhausted or tense, but that they miss the feeling of 'vigour' and happiness. More general assessments are dominated, in turn, by the sense of being ill and by fear of the deterioration of health.

Religion

This domain was added to Lehman's questionnaire on the basis of its German version prepared by Lauer, and it proved to be extremely significant for the interviewed. 92.5% of them describe themselves as believers, and 65% say that religion is very important in their lives. Out of this group, 56% take part in church services every day or once a week.

Discussion of results

A homogeneous group of sixty-six schizophrenic patients, diagnosed according to DSM-III, was examined isochronally seven years after their first psychiatric hospitalisation. The first hospitalisation occurred between 1985 and 1987 in the Kraków Psychiatry Clinic, whereas the study was conducted in the years 1992-1994. Throughout these years, the patients were treated in the psychosocial programme. For these two reasons it is difficult here to make any comparisons with other studies where researchers examined heterogeneous diagnostic groups in a shorter period or after a long stay in an inpatient institution. Therefore the remarks listed below should be treated as tentative.

General subjective satisfaction with life seven years after the first admission is clearly positive. In all the investigated domains, except for the financial situation, the level of satisfaction is above average. A similar result was obtained by e.g. Oliver J.P.J. and Mohamad H. [24] or Spiridonow K. et al. [25]. Such a high level of subjective satisfaction with life as an indicator of the quality of life is hard to interpret and it reveals the weakness of the construct. The fact that general subjective satisfaction is assessed as lower than subjective satisfaction with the majority of particular domains has already been mentioned in the relevant literature. Dickerson F.B. et al. [26] wrote that general subjective satisfaction of the patients did not correspond with satisfaction in particular domains.

The patients who are employed on the labour market (39.5%) remain relatively high in social hierarchy, considering the fact that the study was carried out in the years of economic recession and the collapse of the labour market in Poland. Only 1.5% of those who work have sheltered employment, which shows the inadequacy of the exis-

tent rehabilitation programmes and points to the necessity of developing programmes aimed at rehabilitation by employment. Pinkney et al. [27] report a similar result: 34% in the study group one year after the completion of the deinsitutionalisation programme. Other authors quote smaller figures: Konieczyńska Z. et al. [28] 15%, Lehman A.F. et al. [8] 15%, Atkinson M et al. [29] 1%, but their studies concern chronic patients.

In the Kraków study, seven years after the first episode, 45% of the schizophrenic patients were married. As it was mentioned above, it is difficult to compare different groups of patients who have been ill for a different number of years. Oliver J.P.J. and Mohamad H. [24] report 34.5% of married patients, Konieczyńska Z. et al. [28] 15%, Spiridonow K. et al. [25] 6.6%. The large number of marriages among the schizophrenic patients treated in the psychosocial programme in Kraków is especially noticeable against the background of European studies; other studies demonstrate the role of culture-based factors in this aspect (see results in India; Thara R. and Srinivasan T.N. [30] report 69.7% of married patients).

55% of the interviewed are satisfied with the atmosphere in their families. 77% meet their family every day, and only 1.5% broke any contacts. The obtained picture of family relations is perhaps a little idealised, especially after many years of illness, when, one may suppose, the exhaustion with and the burden of the ill family member increase. In another possible interpretation, a family may be perceived as the natural environment of schizophrenic patients, the environment that to a large extent takes on the burden of care over the ill person and secures his/her social network. As compared to West European countries, this specific phenomenon may be relevant for the organisation of the mental health service in Poland.

The patients interviewed in the Kraków study are characterised by a good sense of safety. The percentage of those victimised, both with (6%) and without (11%) the use of violence, is significantly lower than that in other studies (Hiday V.A. et al. [31] report, respectively, 8.2% and 22%; Lehman A.F. et al. [8] quote 33%). These results may be partly explained by the fact that the Kraków study group does not display some proven predictors of potential victimisation such as drug addiction or impermanent residence (Hiday V.A. et al. [31]). It should also be noted that the question 'Have you ever been a victim of crime and violence?' may have been interpreted by the person interviewed as referring to violence encountered outside the family and outside the family home, whereas it is known from clinical examination that a few female patients fell victim to their husbands' violence.

Conclusions

1. With schizophrenic patients who received treatment in the psychosocial programme, seven years after their first admission positive results prevail in the assessment of both subjective and objective indicators of the quality of life.
2. The obtained results differ in various domains that are indicators of subjective and objective quality of life, which points to little relevance of any global assessment.
3. In the Kraków population of schizophrenic patients, family and religious life are of immense positive significance for the interviewed.

4. In Polish research on the quality of life there should appear a tendency to standardise the indicators in the assessment of the quality of life (one questionnaire) so as to enable comparative research in many research centres and a critical evaluation of the investigated model.

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